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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,969	02/16/2001	Bernard Charles Sherman	PT-1858001	3343

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IVOR M. HUGHES, BARRISTER & SOLICITOR,
PATENT & TRADEMARK AGENTS
175 COMMERCE VALLEY DRIVE WEST
SUITE 200
THORNHILL, ON L3T 7P6
CANADA

EXAMINER	
KIM, VICKIE Y	

ART UNIT	PAPER NUMBER
1614	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/783,969	SHERMAN, BERNARD CHARLES	
	Examiner	Art Unit	
	Vickie Kim	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1,17,19-22 and 24-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1, 17, 19-22, 24-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

RCE acknowledged

A request for continued examination(RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 20, 2004 has been entered.

Status of Application

1. Acknowledgement is made of amendment filed May 20, 2004. Upon entering the amendment, the claims 1, 19, 24-25 are amended and the claim 18 is canceled. New claims 26-27 are added.

2. The claims 1, 17, 19-22, 24-25, 26-27 are pending and presented for the examination.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The component of first surfactant and second surfactant is duplicated, see polyoxyethylene-sorbitan-fatty ester. Since both surfactants are directed to the same compound, one of ordinary skill in the art would not be reasonably apprised

of the scope of the invention. Therefore, one would not know what the metes and bounds of the claims are.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 17, 19-22, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauer et al(US 5916589 or 5,343,625).

Claims are drawn to a composition comprising a microemulsion preconcentrate composition comprising a cyclosporin dissolved in a solvent system including a fully acetylated monoglyceride lipophilic solvent having a minimum acetylation of96%, a hydrophilic organic solvent and a mixture of first surfactant(e.g. hydrogenated vegetable(e.g.castor) oils) and second surfactant(e.g. polyoxyethylel sorbitan fatty acid ester).

Hauer(US'589 or US'625, hereinafter) teaches a pharmaceutical composition containing a cyclosporin as an active agent in the form of "microemulsion or microemulsion pre-concentrate" which comprises a hydrophilic phase, a lipophilic phase and a surfactant system, see abstract and column 6, lines 38-67. Each Hauer's patent teaches a size of droplet less than 2000Å, see column 6, lines 13-22 and lines 10-18, respectively. Each patent teaches that cyclosporin as an active agent dissolved in

hydrophilic solvents such as transcutrol, glycofurol or propylene glycol and lipophilic solvents such as fatty acid triglycerides(e.g. Miglyol™) or Captex™, see columns 7-9. Especially, at column 9, line 50 or line 44, respectively, each patent teaches a surfactant system utilizing at least two surfactants comprising a mixture of hydrophilic surfactant(e.g. natural or hydrogenated vegetable(e.g.castor) oils such as Cremophore RH 40™, polyoxyethylel sorbitan fatty acid ester, polyoxyethylene fatty acid esters, etc; see components 3.1.1-3.1.9 at columns 9-11) and a lipophilic surfactant (e.g. sorbitan fatty acid esters , or a mono-or diacetylated monoglycerides such as Myvacet^{tm} , see components 3.2.1-3.2.7 at columns 11-12), see column 12, lines 25-28 and lines 28-30.

Furthermore, at column 12, each patent teaches a use of mono-or diacetylated monoglycerides(e.g. Myvacet™) in a preferred example utilizing a combination of natural or hydrogenated vegetable oils(as a hydrophilic surfactant) and a acetylated mono-or diacetylated monoglycerides(e.g. Myvacet™) as a lipophilic surfactant, see column 12, lines 17-38 and lines 19-42, respectively.

Especially, each patent teaches that the surfactants(3.1.1- 3.2.7) incorporated in the composition can be used not only as surfactant but also co-solvent(as part of the hydrophilic or lipophilic phase), see column 12, lines 39- 45 and lines 42- 49, respectively.

As evidenced by applicants own admission(see page 7 of instant specification), Myvacet™ is a fully acetylated monoglyceride lipophilic solvent having a minimum acetylation of96%. Thus, one would have been envisaged that MYVACET^{tm} is not only

the lipophilic solvent but also the surfactant and also being miscible with hydrophilic solvent.

As to claim 21, each patent teaches additional hydrophilic phase components(e.g. lower C1-5 alcohol), see column 8, lines 33-47

Thus, all the critical elements required by the instant claims are suggested by the cited reference. Although the claimed invention is not exemplified in the patented reference, it would have been obvious to one of ordinary skill in the art to make such composition because it is readily apparent that a combination of two or more surfactants would be better to establish stability via enabling higher concentration of the drug dissolved and adequate ease of dispersion, especially due to their dual functionallity which acts as both surfactant and solvent as taught by the cited reference, see column 12, lines 24-26 and 27-29.

Since the cited references utilize a mixture of at least two surfactants, thus, the claimed invention is obvious and one would have made such modification using the ingredients required by both claims and cited reference and the reasonable expectation of success can be anticipated because the techniques and the skills to make such modification is well within the skilled level of the artisan having ordinary skill in the art, absent evidence to the contrary. Thus, the claimed subject matter is not patentably distinct over the prior art of the record.

4. Claims 26-27 are rejected under under 35 U.S.C. 103(a) as being unpatentable over Hauer et al(US 5916589 or 5,343,625) in view of (US5980939).

The claims are drawn to a emulsion composition(e.g. emulsion or microemulsion preconcentrate) comprising cyclosporin, a fully acetylated monoglyceride lipophilic solvent having a minimum acetylation of 96% as lipophilic solvent, propylene carbonate and a surfactant having both lipophilic and hydrophilic properties.

Hauer's teaching is mentioned immediately above in 103 rejection.

Applicant's claims differ in that they require propylene carbonate as a hydrophilic solvent.

Kim et al(US'939, hereinafter) teach a emulsion or microemulsion preconcentrate comprising cyclosporin, propylene carbonate, poloxamer 124 and a mixture of a mono- and a diglyceride, see claim 1. Poloxamer is already well recognized in the art as a surfactant that has both hydrophilic and lipophilic properties, see PTO-892 for supporting documents.

Since both propylene carbonate(Kim's patent) and propylene glycol(Hauer's patent) are hydrophilic solvents that is compatible with cyclosporin and functionally equivalent to each other as evidenced by applicant's own admission(see instant specification at page 8 line 26), one would have been motivated to substitute propylene glycol with propylene carbonate to extend the selection option to lower the cost of manufacture and increase accessibility of raw ingredient.

One would have been motivated to make such substitution, with reasonable expectation of success, because they are drawn to same technical fields (constituted with same ingredients and share common utilities, and pertinent to the problem which applicant concerns about. MPEP 2141.01(a).

Conclusion

3. No claim is allowed.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickie Kim whose telephone number is 703-305-1675. The examiner can normally be reached on Tuesday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel can be reached on 703-308-4725. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-3165 for regular communications and 703-746-3165 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

Vickie Kim,
Primary Patent examiner
Art unit 1614